PIONEER PARTNER®

P39 P52 P42 P62

24:1

OWNER'S MANUAL

CHAIN: OREGON 73SG-60C
54-5697-4
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.030 clearance
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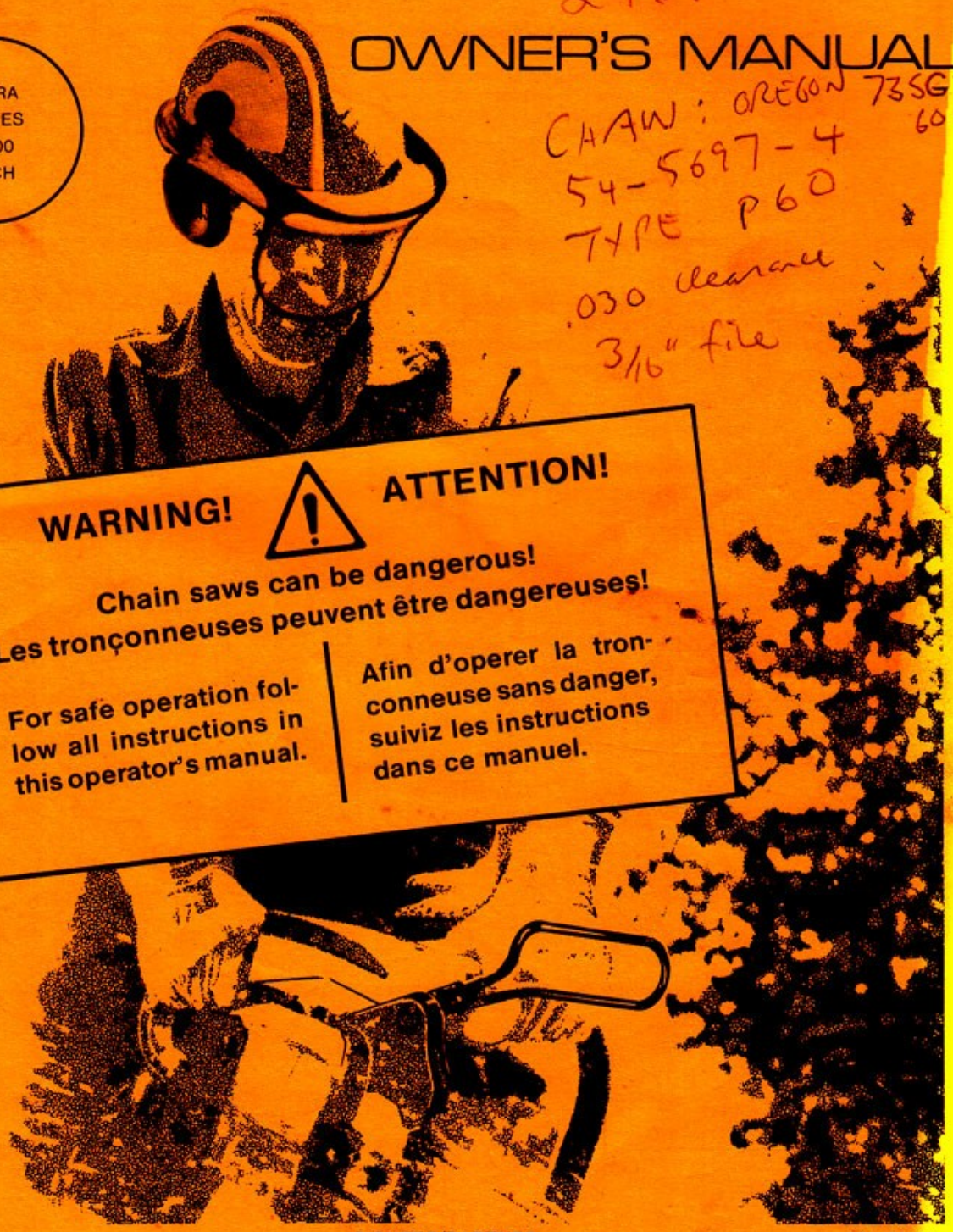

WARNING! **ATTENTION!**

Chain saws can be dangerous!
Les tronçonneuses peuvent être dangereuses!

For safe operation follow all instructions in this operator's manual.

Afin d'operer la tronconneuse sans danger, suiviz les instructions dans ce manuel.

04-84

PIONEER/PARTNER
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P/N 433203

may not necessarily depict actual models or equipment, but are intended for reference only and are based on the latest product information available at the time of publication.

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FOREWORD

SECTION 1

EVERYONE WHO USES THIS EQUIPMENT SHOULD READ THIS MANUAL AND BE FAMILIAR WITH THE SAFETY WARNINGS MARKED ⚠

Your Pioneer/Partner Chain Saw has been designed and produced to the finest engineering and quality control standards. Properly operated and maintained it will give you long and dependable service. It has always been a policy with Pioneer/Partner, that a sale does not complete the transaction between the manufacturer and the buyer. It establishes, rather, a new obligation; an obligation to assist the buyer in obtaining the utmost in performance and service from a Pioneer/Partner Chain Saw.

In accord with this policy, it has been our endeavour not only to place an authorized Pioneer/Partner Service Dealer within reach of every owner, but also to provide information such as found in this owner's manual.

This Owner's/Operator's manual has been prepared to assist you in the operation and maintenance of your new Pioneer/Partner saw. It contains information that you should know in order to realize peak performance and pleasure of operation. Please read all portions carefully and keep it handy for future reference.

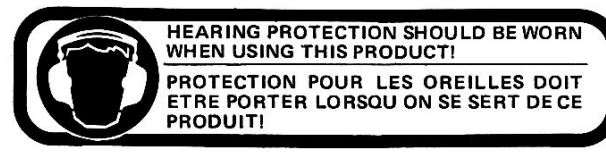
WARNING SYMBOLS

SECTION 2

The purpose of safety symbols is to attract the operator's attention to possible danger. The symbols, and the explanations with them, deserve your careful attention and understanding. Safety warnings do not by themselves, eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

Symbol	Meaning
NOTE:	ADVISES YOU OF INFORMATION OR INSTRUCTIONS VITAL TO THE OPERATION OR MAINTENANCE OF YOUR EQUIPMENT.

Symbol	Meaning
⚠ **Safety Warning**	**FAILURE TO OBEY A SAFETY WARNING MAY RESULT IN SERIOUS INJURY TO YOU OR TO OTHERS.**



⚠ **Safety Warning**

CHAINSAWS CAN BE DANGEROUS!
BEFORE USING YOUR CHAINSAW, CAREFULLY READ ALL OPERATING AND SAFETY INSTRUCTIONS IN THIS OWNER'S MANUAL TO REDUCE POSSIBILITY OF SERIOUS INJURY.
NEITHER PIONEER/PARTNER CHAINSAW CORP., INC. NOR ANY OF ITS' AGENTS WILL ASSUME RESPONSIBILITY FOR LOSS RESULTING FROM OPERATION OF A PIONEER/PARTNER CHAINSAW THAT HAS BEEN.

(1) ALTERED OR MODIFIED SO AS TO ADVERSELY AFFECT ITS OPERATION, PERFORMANCE OR DURABILITY; OR

(2) USED FOR A PURPOSE OTHER THAN THAT OF CUTTING WOOD, THE USE FOR WHICH IT WAS DESIGNED AND MANUFACTURED.

SPECIFICATIONS

SECTION 3

See product sheets for specifications

SAFETY PRECAUTIONS

SECTION 4

Safety Warning

The following practices and procedures are intended to make you aware of the hazards that may be encountered when operating a chain saw. For your safety, we recommend becoming familiar with these prior to operating your chain saw.

1. Never operate a chain saw when you are fatigued.
2. Use safety footwear, snug-fitting clothing, and eye, hearing and head protection devices. See Figure 1.

FIGURE 1

3. Always use caution when handling fuel. Move the chain saw at least 10 feet (3 m) from the fueling point before starting the engine.
4. Keep all bystanders and animals clear of the work area. Persons other than the operator should not be allowed near the chain saw during starting, cutting or felling operations. Helpers should remain outside the swing radius of the saw. See Figure 2.

FIGURE 2

5. Never start cutting until you have a clear work area, secure footing, and a planned retreat path from the falling tree. See Figure 3.

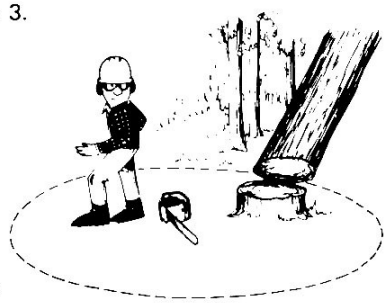


FIGURE 3

6. Always hold the chain saw firmly with both hands, using the left hand on the front handle and the right hand on the rear handle. When the engine is running use a firm grip with thumbs and fingers encircling the chain saw handles. See Figure 4.

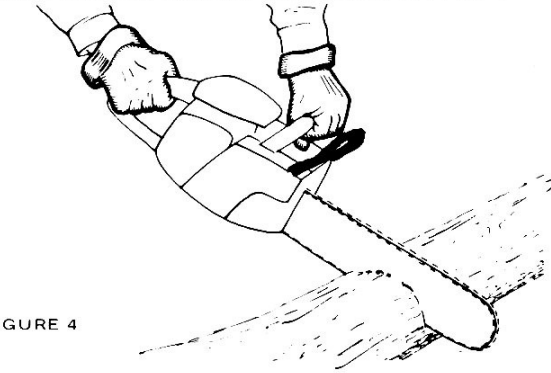


FIGURE 4

7. Keep all parts of your body away from the saw chain when the engine is running.
8. Before you start the engine, make sure the saw chain is not contacting anything.
9. Never operate a chain saw that is damaged, improperly adjusted, or is not completely and securely assembled. Be sure that the saw chain stops moving when the throttle control trigger is released.
10. Always shut off the engine before setting it down.
11. Use extreme caution when cutting small size brush and saplings because slender material may catch the saw chain, and be whipped toward you or pull you off balance.
12. When cutting a limb that is under tension be alert for spring back so that you will not be struck when the tension in the wood fibres is released. See Figure 5.

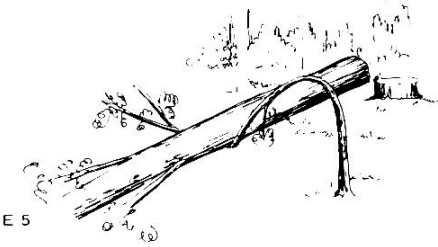


FIGURE 5

13. Place the chain guard over the bar and always carry the chain saw with the engine stopped, the guide bar and saw chain to the rear, and the muffler away from your body. See Figure 6.

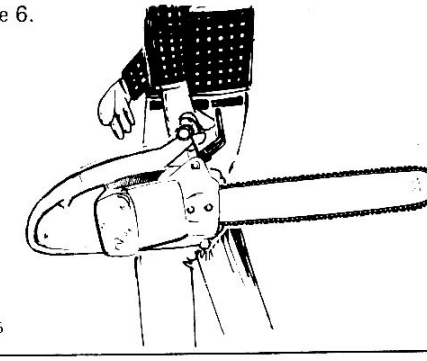


FIGURE 6

14. Keep the handles dry, clear and free of oil or fuel mixture.

15. Carbon monoxide, present in the exhaust, is an odorless and deadly gas. Operate the saw only in well ventilated areas.

16. Do not operate a chain saw in a tree unless you have been specifically trained to do so . . . USE COMMON SENSE. See Figure 7.

FIGURE 7

17. Use extreme caution when felling a tree under windy conditions.

18. All chain saw service, other than the items listed in the Owner's/Operator's Manual general maintenance instructions, should be performed by competent chain saw service personnel. (e.g. if improper tools are used to remove the flywheel, or if an improper tool is used to hold the flywheel in order to remove the clutch, structural damage to the flywheel could occur, resulting in possible bursting of the flywheel).

19. Guard against kickback! Kickback is the violent backward or upward motion of the chain saw which occurs when the nose of the guide bar accidently becomes pinched or contacts an object - especially if contact occurs within the critical area shown in the inset of Figure 8. Kickback can lead to sudden, unexpected loss of control of the chain saw resulting in a safety hazard to you, the operator, See Figure 8.

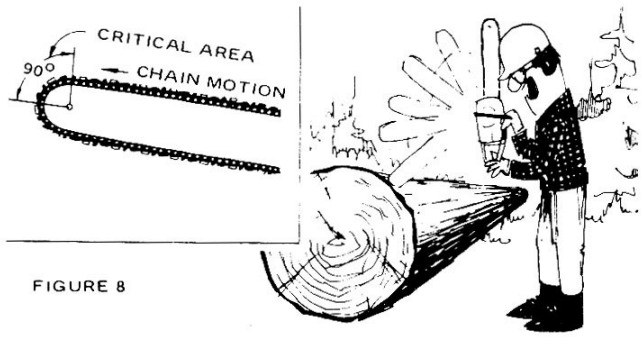


FIGURE 8

TO AVOID KICKBACK

Hold the chain saw firmly with both hands. Do not overreach or cut above shoulder height. Both practices allow for the situation described in item 19, resulting in kickback. Do not let the nose of the guide bar contact a log, branch or other object in the critical area depicted in Figure 8 inset. Cut at higher chain speeds. Follow the manufacturer's recommended chain sharpening and maintenance instructions, as improper sharpening procedures can increase the possibility of kickback (See Section 13 - Chain Maintenance). Do not stand directly behind the saw when bucking. Learn to stand to one side, out of the path of an unexpected kickback.

20. When bucking and felling operations are being performed by 2 or more persons, the felling operation should be separated from the bucking operation by a distance at least twice the height of the trees being felled.

21. When bucking a log, it is important to make sure footing is firm and weight is evenly distributed on both feet. If possible, the log should be raised and supported by use of limbs, logs or chocks. When bucking or felling on a slope, always work from the uphill side. See Figure 9.

FIGURE 9

Immediately upon completing a cut, release the throttle trigger. This will not only prevent overrevving of the engine in a no-load condition, but also avoid chain damage through accidental contact with the ground.

22. Before felling a tree consider, (A) the natural lean of the tree (B) the location of the heavier branches (C) the wind direction, then judge the direction the tree will fall. See Figure 10.

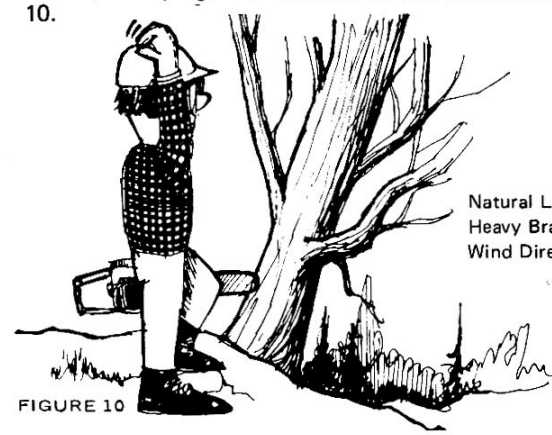


FIGURE 10

23. As the felling cut gets close to the hinge the tree should begin to fall. If there is any chance that the tree might not fall in the desired direction, or may rock back and bind the saw chain, stop cutting before the felling back cut is completed and use wedges made of wood, plastic or aluminum to open the cut and drop the tree along the desired line of fall.
When the tree begins to fall, remove the chain saw from the cut, stop the engine, put the chain saw down, then use the retreat path planned. Be alert for overhead limbs falling and watch your footing. See Figure 11.

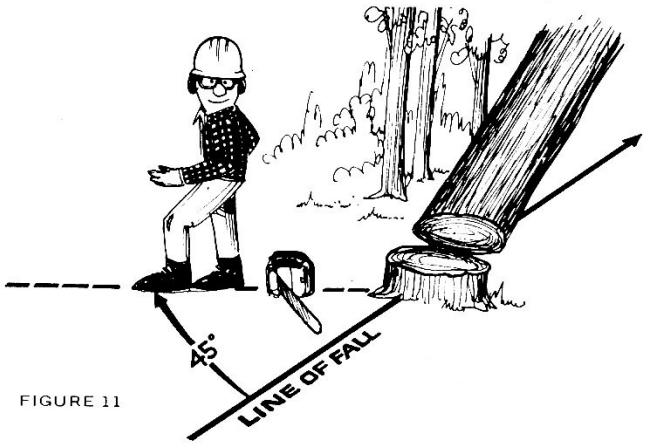


FIGURE 11

24. Never fell a tree in a manner which will endanger persons or property. Avoid striking Utility lines - if contact is made with a Utility line, notify the Utility company immediately. See Figures 11A and 11B.

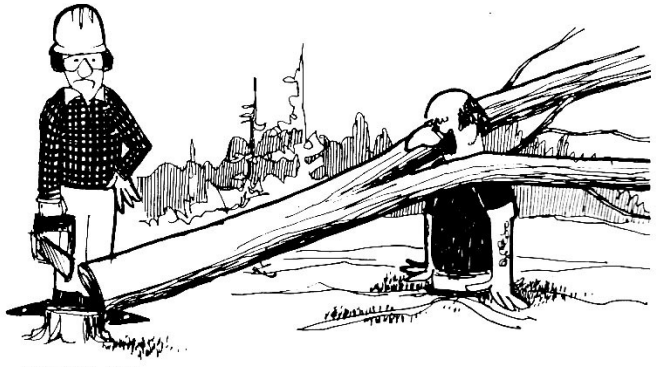


FIGURE 11A

25. When boring with a chain saw, the initial cut must be started with the LOWER part of the guide bar tip (nose) and the cut made large enough to allow the entire nose to enter freely - this will reduce the risk of kickback but use extreme caution.

26. Avoid dangerous environmental conditions i.e. do not risk slipping on wet footing by operating a saw in the rain, etc., do not operate a saw in an explosive atmosphere (dust or gas), do not operate a saw under poor light conditions.

27. Never store your chain saw with fuel in the tank, or in the presence of an external ignition source (open flame, pilot light, electrical spark, etc.). Do not store in an enclosed space where fumes are trapped. Do not delay repairing any source of fuel leakage - take the saw to an Authorized Dealer as soon as fuel leakage is noticed. Periodically check the complete fuel system for evidence of fuel leakage (hose deterioration, etc.) or have your local dealer do so at least once a year.

28. Always observe the proper starting procedure outlined in Section 8. Avoid possible injury; never "drop" start the saw!

29. Never cut through live electrical conductors - death or serious injury can result from electrical shock. See Figure 11B.

30. Use extreme caution whenever cutting conditions allow for the possibility that the chain or guide bar can become "pinched" in the cut . . . violent and unexpected linear kickback can occur.

Refer to Section 11 operating instructions.

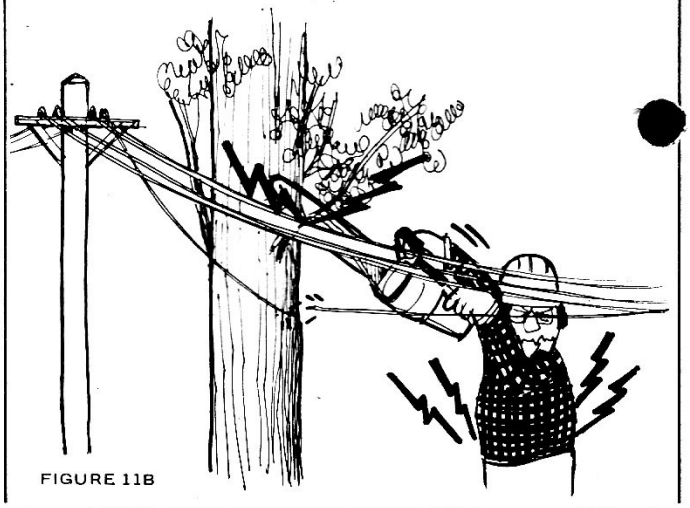


FIGURE 11B

FIRE PREVENTION - Do's & Don'ts

SECTION 5

DO'S

1. Refuel your saw with the use of a funnel on an area that has been cleared down to bare ground.
2. If gas is spilled on motor, wipe it off, or let it evaporate before starting the motor.
3. Move the saw ten feet at least from the fueling spot before starting the motor.
4. Clear inflammable material away before cutting.
5. Let a hot saw cool before refueling.
6. Keep the spark plug and wire connections tight.
7. Always keep a Class B fire extinguisher handy.

DON'TS

1. Do not leave hot saw on dry litter or slash. Set it on a log, stump or bare ground.
2. Do not leave empty fuel or starter fluid cans in the bush. These have been known to explode and start fires.
3. Never operate a chain saw without a muffler.
4. Do not use a saw that is back-firing, missing, or otherwise not running properly. Have it repaired immediately. Never take the risk of starting a forest fire.
5. Do not smoke when fueling.

PREPARING YOUR SAW FOR USE

SECTION 6

1. To assemble the bar and chain, remove the clutch cover and *outer guide plate. Place the guide bar over the two studs located on the side of the crankcase. (See Figure 12)

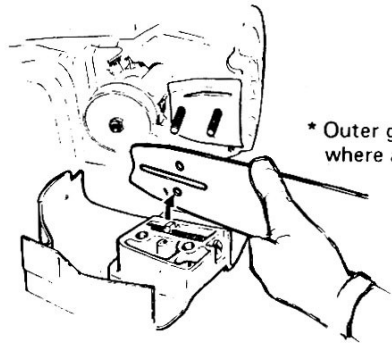


FIGURE 12

2. Install the chain starting at the sprocket end. (See Figure 12A)

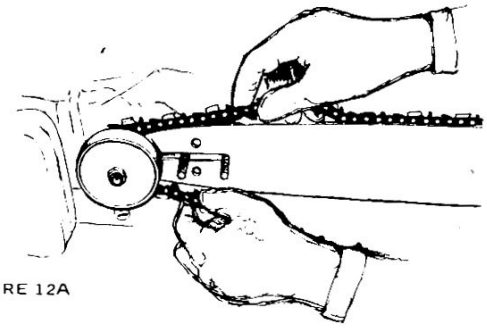


FIGURE 12A

NOTE Be sure the chain cutting teeth are pointing forward and the drive links are properly seated in the bar groove. (See Figures 13 and 14)

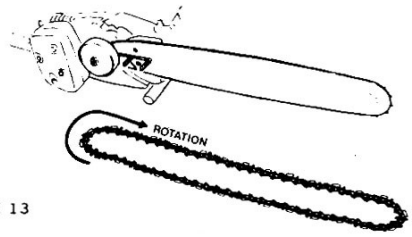


FIGURE 13

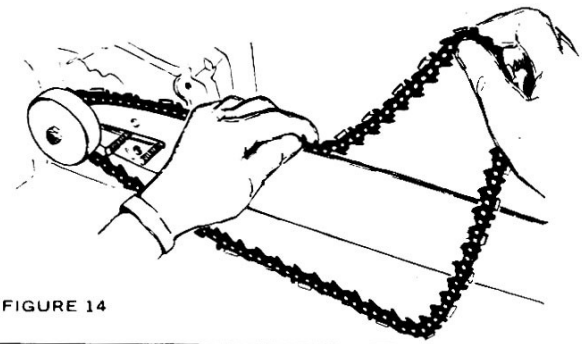


FIGURE 14

3. Replace the *outer guide plate, clutch cover and clutch cover nuts. Do not tighten. (See Figure 15).

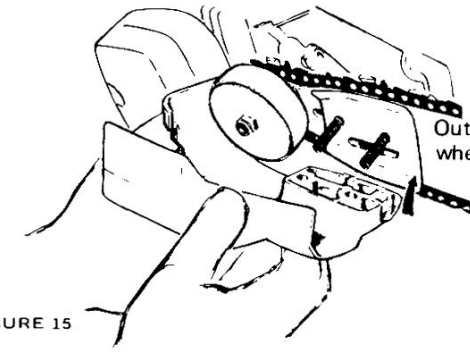


FIGURE 15

NOTE Be sure the adjustment pin in the clutch cover is properly positioned in the adjustment pin hole of the guide bar (See Figures 12 and 15).

NOTE Keep bar pad, guide bar face and guide bar oil slot clean. Turn your bar over periodically to keep wear even.

4. Lifting the nose of the guide bar, adjust the chain tensioning screw as shown in Figure 16 until the chain is in contact with the lower guide bar rails. Tighten the clutch cover nuts as shown in Figure 17. A properly tensioned chain will be snug over the entire contour of the bar but still allow for free movement around the bar. See Figure 18.

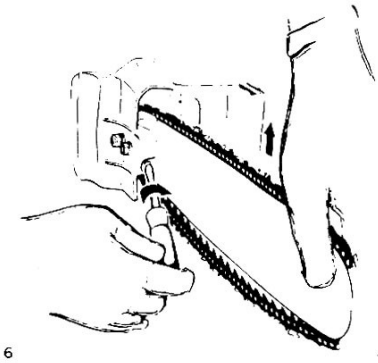


FIGURE 16

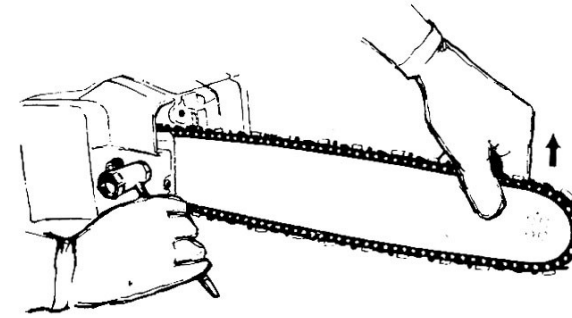


FIGURE 17

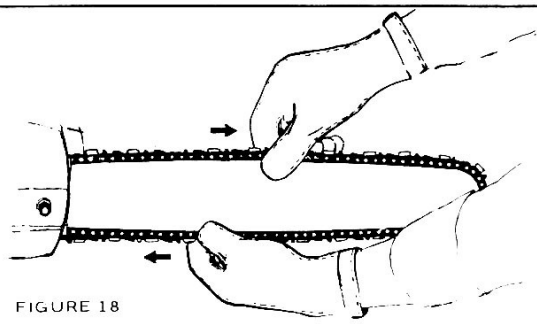


FIGURE 18

Safety Warning — **Protect your hands from the sharp chain cutters. Always use a rag or wear gloves when working on saw chain.**

NOTE: The importance of correct chain tension cannot be overstressed. Both extremes - too tight, or too loose, are the common causes for serious damage to cutting attachments. Frequent readjustment especially during break-in period is a must.

NOTE Pioneer type HTB No. 2 lubricant must be applied to the sprocket nose bar daily. (Available from your Pioneer dealer). See Figure 19.

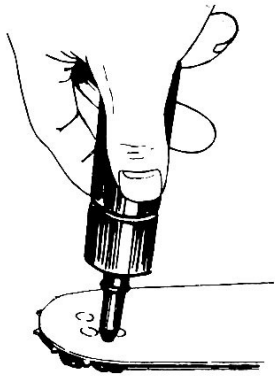


FIGURE 19

CHAIN BRAKE MODELS

These models are equipped with a clutch cover which incorporates a chain brake. This feature is designed to stop the chain virtually instantly should "KICKBACK" occur (described in item 19 of safety precautions).

Safety Warning — **The chain brake system does not relieve the operator of the obligation either to use good judgement whenever operating a chain saw or to follow recommended practices to avoid the occurrence of kickback.**

OPERATING INSTRUCTIONS

1. If kickback occurs, the back of the operators hand will contact the brake lever; shifting it to the forward position, immediately stopping the chain drive sprocket.
   See Figure 20.

FIGURE 20

Safety Warning — **Should kickback occur the operators hand will only activate the chain brake when the chain saw is held as shown in illustration Figure 21A.**

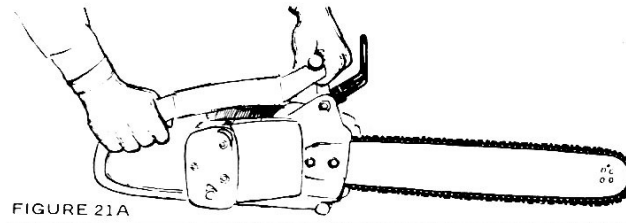


FIGURE 21A

A hand held in this location cannot trip the chain brake lever in the event of kickback.

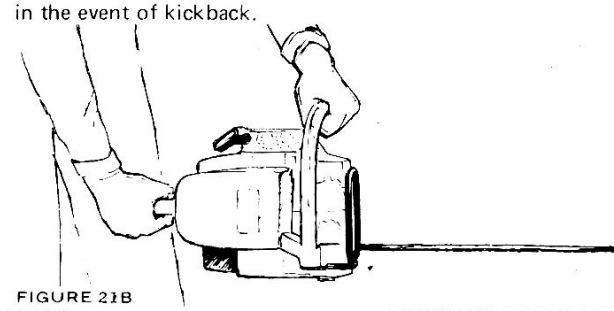


FIGURE 21B

NOTE: Immediately release the throttle control trigger when the chain brake has been engaged or clutch and brake damage will result.

2. To disengage the brake pull the lever back until you feel it lock.
   See Figure 22.

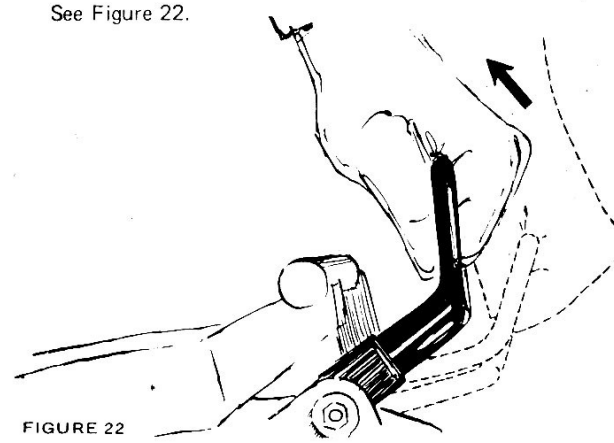


FIGURE 22

Safety Warning

Make an operational check of the brake at the start of each working day. Do not attempt to simulate KICKBACK to check the brake system. Increase the engine RPM until the chain is turning, then holding the saw firmly with BOTH hands, trip the brake lever. Use the thumb of your left hand to trip the brake while still firmly holding the front handle. Release the throttle trigger immediately the brake stops the chain. See Figure 23.

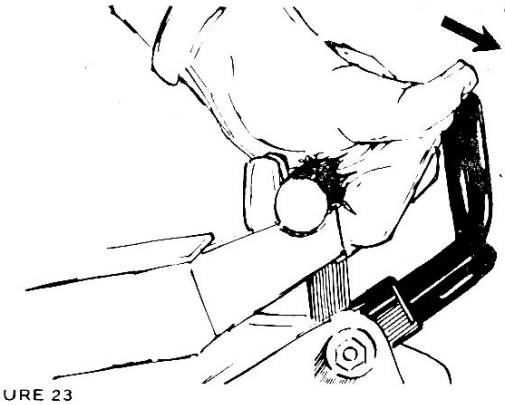


FIGURE 23

FUEL and LUBRICATION

SECTION 7

1. ENGINE

Safety Warning

Gasoline is extremely flammable and highly explosive under certain conditions. Always stop engine, and do not smoke or allow an open flame or spark near the saw when refueling or servicing the fuel system. Always mix in well vented area.

The internal moving parts of your chain saw engine are lubricated solely by the lubricant which is added to the gasoline.

Gasoline: Use LEADED OR NON-LEADED regular gasoline. Premium or high octane gasoline is not recommended.

NOTE

Your chain saw engine has been run-in and adjusted at the factory for optimum performance and fuel economy. To maintain this performance and ensure a long, servicable engine life, it is recommended that a break-in procedure be observed: for the first two gallons (10 litres) of fuel mixture, use a richer oil to gasoline ratio 16:1 (6 %)
i.e. one part reputable brand two cycle engine oil to 16 parts gasoline.
i.e. 1/2 pint of oil per gal. of gasoline or 60 c.c. of oil per litre of gasoline.
Do not operate the engine at maximum power for extended periods or "race" the engine during the break-in period.

ENGINE LUBRICATION AFTER BREAK-IN: Use one part two cycle motor oil to 24 parts gasoline. (4%).

NOTE:

Mix your fuel thoroughly and keep clean at all times. DO NOT MIX DIRECTLY IN YOUR CHAIN SAW FUEL TANK.

STANDARD MIXTURE 24:1 (4%)

IMPERIAL		U.S.A.		METRIC	
FUEL	OIL	FUEL	OIL	FUEL	OIL
1 gal.	6.6 oz.	1 gal.	5.3 oz.	5 litre	200 ml.
2 gal.	13.3 oz.	2 gal.	10.7 oz.	10 litre	400 ml.
5 gal.	33.3 oz.	5 gal.	26.6 oz.		

*One (1) Imperal Gallon = 160 Fl. Ounces
**One (1) U.S.A. Gallon = 128 Fl. Ounces

2. CHAIN AND GUIDE BAR

The automatic chain oiling system must be operating properly at all times to prevent damage to guide bar, chain and sprocket. Adjustment is made by means of the slotted screw. See Figure 24. This screw has a range of three quarters of a turn from minimum to maximum oil delivery.

NOTE:

The automatic pump delivery has been adjusted at the factory for average conditions with 16" attachments. Adjustments may be altered at the discretion of the operator to meet various cutting conditions e.g. temperature, type or size of wood and oil viscosity.

To Decrease delivery - turn screw In (clockwise) **To Increase delivery** - turn screw Out (counterclockwise) See Figure 24.

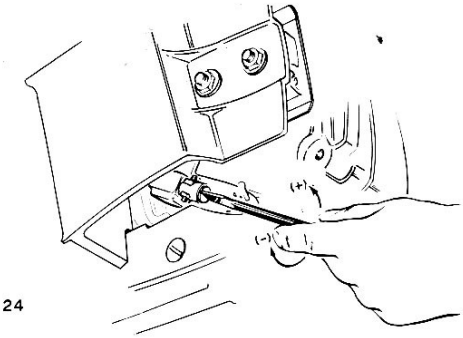


FIGURE 24

To check automatic oil pump operation start and rev the engine several times. A fine spray of oil should be observed coming from the nose of the guide bar.

NOTE: Fill the oil tank with PIONEER/PARTNER CHAIN LUBRICANT according to the following chart.

TEMPERATURE	LUBRICANT
Below -18° C (0° F)	Light Chain Lubricant (SAE 10)
-18° TO +10°C (0° - 50°F)	Medium Chain Lubricant (SAE 20)
Above 10° C (50° F)	Heavy Chain Lubricant (SAE 30)

NOTE: Under extreme winter cutting conditions below -23° C (-10° F), even SAE 10 oil will become too thick to prime and flow through the automatic oiling system on a cold start. Although the oil may warm up in the saw within minutes, the damage to the chain and guide bar can be extensive in this short time. At lower temperatures this thickening of the lubricant could lead to permanent damage of the pump mechanism itself. Therefore, it is recommended to dilute the chain lubricant with Kerosene, Diesel or Fuel oil under extreme cold weather conditions to the following ratios:

-23° C (-10° F) add one pint diluent to one gallon of oil

-28° C (-20° F) add one quart diluent to one gallon of oil

The required mixture should, of course, be prepared prior to the indicated subzero temperature exposure.

STARTING INSTRUCTIONS

SECTION 8

Safety Warning **Before using the saw, refer to safety precautions shown on page 3 and 4.**

1. Fill fuel tank with properly mixed fuel as previously explained.
2. Fill your chain oil reservoir with the recommended oil.
3. To start the engine, (refer to Figure 25), place the chain saw in a convenient position where it will sit firmly when you pull the starter handle.

Ensure that the ignition on-off toggle switch is in the "ON" position. Pull choke knob out. Set throttle Control latch by squeezing the throttle control lockout and throttle control trigger; push in throttle control latch and release throttle control trigger.

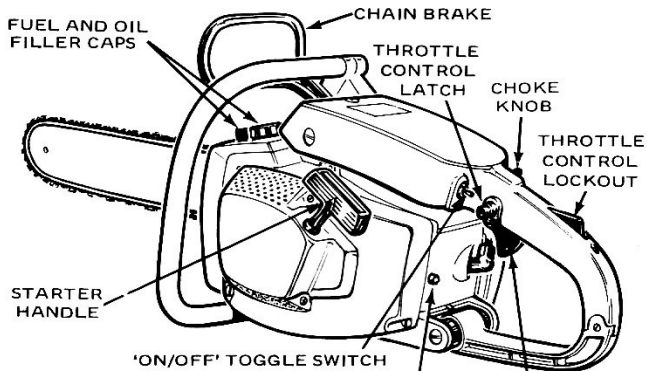


FIGURE 25

4. Hold front handle firmly and place your foot in the rear handle loop.

NOTE: Be sure the chain brake is in the "running" position (disengaged fully back) before attempting to start the engine.

Grip the starter handle. Pull handle slightly until you feel the starter engage, then give a sharp, firm pull. Repeat until engine starts.

When the engine starts, allow the starter handle to recoil to its original position. Do not allow handle to snap back.

5. Once engine is started and requires no further choking, release the throttle control latch to ensure a slow idle. This is done by squeezing and releasing the throttle control trigger.

Safety Warning **Keep clear of the cutting chain. With the throttle control latch set, the engine speed will engage the clutch and move the chain around the bar as soon as the engine starts.**

NOTE A hot engine should restart without choking. Inadvertent flooding may require 6 to 8 pulls to clear and restart. If after the above the engine fails to start a single choking may be necessary.

STOPPING INSTRUCTIONS

SECTION 9

To stop the saw, place ignition on-off toggle switch to "OFF' position by moving the toggle switch downward.

Safety Warning

Always shut off the engine before setting the saw down, otherwise the throttle could be inadvertantly opened and present a hazard to anyone near the moving chain.

CARBURETOR ADJUSTMENTS

SECTION 10

All carburetors are tested and adjusted at the factory. Little adjustment, if any, is required. Before making any adjustment, note the present position and move only slightly.

1. The idle speed adjusting screw, controls the idling speed of your motor and is so set that the motor will idle without moving the chain. This adjustment should not require further attention on your part.
2. The low speed adjustment needle, marked L on the side of the casting is the front adjustment needle located on the left side of motor. This controls the fuel mixture at idling speed. To make any slight adjustment, it opens by turning to the left and closes by turning to the right.
3. The high speed adjustment needle, marked H on the side of the casting is the rear-most of the two adjustment needles located on the left side of the motor, and controls the fuel mixture when throttle is fully open. See Figure 26.

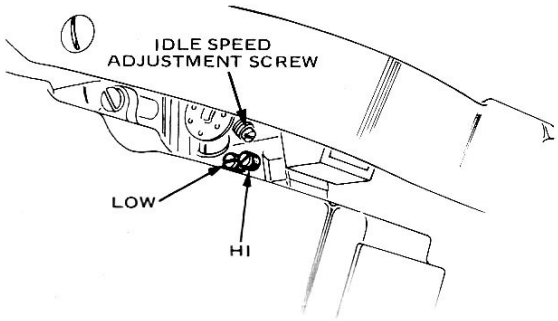


FIGURE 26

INITIAL CARBURETOR SETTINGS

The recommended settings are only approximations. The best setting for any specific chain saw can vary from the recommended setting. HIGH - 7/8-1 LO - 1-1-1/4

NOTE: The carburetor is fitted with a speed limitation device to prevent overspeeding of the engine. The removal or alteration of this device could cause over speeding and cause premature wear or failure of the engine.

1. Set the high (HI) and low (LO) speed needles as stated above. Set the idle speed adjustment screw for smooth operation below the clutch engagement speed.
2. Adjust the low speed system (LO) by turning the mixture screw clockwise until the engine begins to falter, then enrich the mixture by turning the screw 1/8 turn anti-clockwise.
3. Adjust the high speed system (HI) only slightly leaner (clockwise) if higher RPM is required for limbing.

Excessive smoking, lack of power and rough exhaust sound indicates that the carburetor fuel mixture adjustments are set too rich. Loss of power, poor acceleration, overheating or stalling under load indicate that the high speed mixture (HI) is set too lean. Only when these conditions occur should the carburetor adjustment be tampered with.

NOTE: When adjusting the carburetor, avoid jamming the adjustment screws into their seats by over tightening. To do so will damage the carburetor beyond repair. See Figure 27.

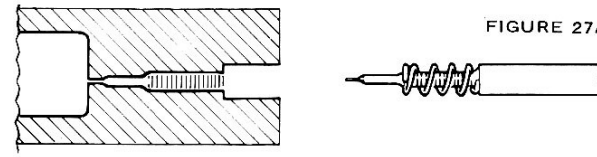


FIGURE 27A

Arrows in Figure 27B schematic indicate possible damage to carburetor seat and needle.

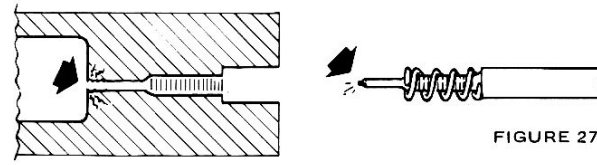


FIGURE 27B

NOTE: When servicing the saw, use only genuine Pioneer/Partner Service Parts and recommended Service Procedures. The use of unauthorized parts or modified components could affect the safe operation of the saw and will void the manufacturer's warranty.

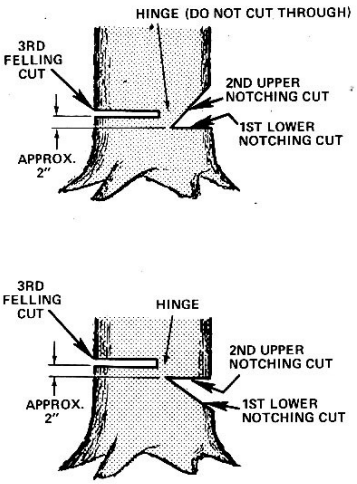
OPERATING INSTRUCTIONS

SECTION 11

If you have not previously operated a chain saw, cut a few lengths from a small log to get the feel of a chain saw in action. When starting a cut, do not race the engine and jam the saw into the wood. Slowly increase the throttle to engage the chain as you start a cut. Always maintain full throttle while in a cut. Your chain saw is a direct drive type, and, because of its high speed cutting action, you should not exert pressure to force it through the wood. A light but firm touch will get more wood cut with less effort on your part. When coming to the end of the cut, be prepared to release the throttle immediately. Study the following illustrated cutting techniques. (See Figures 28, 29, and 30). Observe all the safety precautions listed in section 4 of this manual.

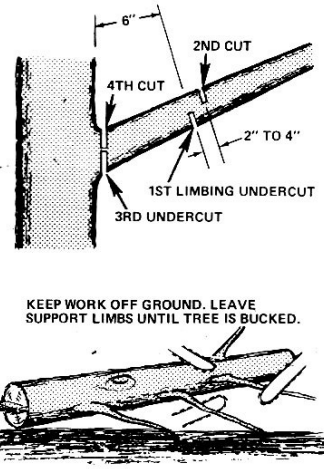
FELLING

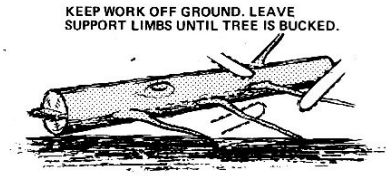
FIGURE 28



LIMBING

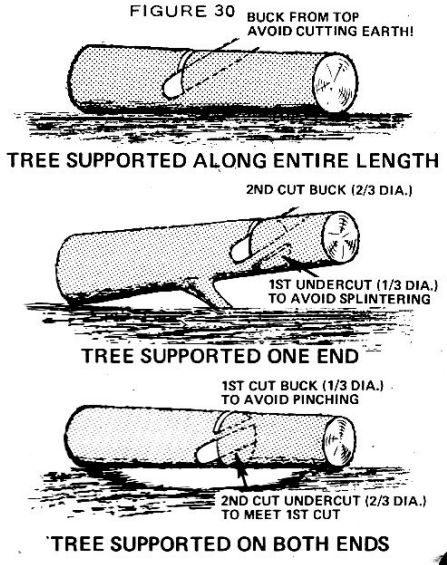
FIGURE 29





BUCKING

FIGURE 30



GENERAL MAINTENANCE INSTRUCTIONS

SECTION 12

The following information will provide a guide for a program of preventive maintenance, inspection and care that will ensure longer life and continued troublefree performance of your chain saw.

Suggested frequencies of inspection are for average usage and operating conditions; more or less frequent checks could be made depending on your particular cutting circumstances.

Those items requiring special tools or knowledge to service, should be carried out by your local, factory trained, Pioneer dealer.

At the end of each working day check for loose screws, nuts wires or damage. Tighten all loose parts and replace damaged parts. Keep your saw and attachments clean.

1. AIR FILTER: The air filter must be kept clean to protect the engine and ensure that enough filtered air reaches the engine for proper combustion. Hard starting, lack of power and poor fuel economy can result from a dirty air cleaner. At least once a day, several times a day under dusty conditions, remove the filter element and tap it free of dust. A more thorough cleaning may be accomplished by washing the filter in clean gasoline (NOT FUEL MIX), non-oily solvent, or detergent and water. Allow the filter to dry thoroughly before reinstalling. Some owners find it practical to keep spare filters on hand. Because cleaning can not remove all the dust, it will be necessary to replace the filter occasionally. Always replace a damaged filter element. See Figure 31.

2. CYLINDER COOLING FINS: An air-cooled engine must have an unhindered flow of air to maintain proper operating temperatures. At least once a week (depending on type of cutting conditions - e.g. presence of moss, etc.) remove the starter housing and clean debris from between the cylinder fins. A narrow-blade screw driver, piece of coat hanger wire or other small diameter implement may be used. See Figure 32.

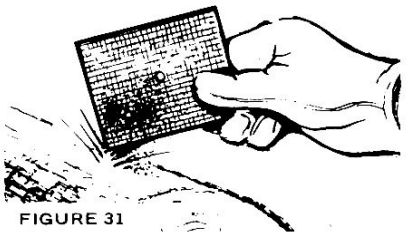


FIGURE 31

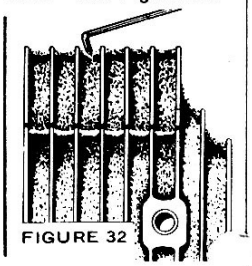


FIGURE 32

3. SPARK PLUG: Periodically (or if hard starting and/or ignition misfire is experienced) remove and clean or replace. Sand blast is not recommended as a means of cleaning - scraping of carbon deposits is preferred. See Figure 33.

4. SPARK ARRESTOR SCREEN: If your chain saw is equipped with a spark arrestor baffle in the muffler, once a month remove the muffler cover and lift out the baffle and screen assembly. Using a wire brush carefully remove accumulated carbon deposits. Do not re-install a screen showing evidence of fraying or other damage.

5. FUEL FILTER: Periodically replace the felt filter element located in the fuel tank. This will ensure that an unhindered flow of filtered fuel reaches the carburetor. Replacement elements are available through your local Pioneer dealer. See Figure 34.

FIGURE 33

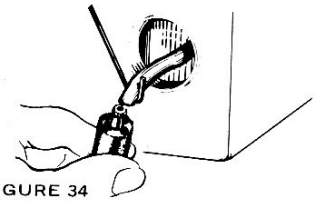


FIGURE 34

6. CARBURETOR: At least once a season have your local Pioneer dealer clean and adjust the carburetor to assure continued optimum idle, acceleration and cutting performance.

7. IGNITION SYSTEM: Periodically (or when hard starting and/or ignition misfire is noticed) have your local dealer check the ignition system.

8. AUTOMATIC OIL PUMP: Refer to appropriate section under "fuel and lubrication". Use clean oil and keep oil passages in the guide bar clear of sawdust for continued trouble-free performance.

9. STARTER: Periodically check for fraying of the starter rope. Replace if cut or frayed.

Periodically, or if experiencing slow rope rewind, etc., have your local dealer clean and lubricate the starter mechanism.

10. GUIDE BAR: See Section 15.

11. CHAIN: See Chain Maintenance section. Keep your chain sharp, properly jointed, well lubricated and properly tensioned. See Section 13.

12. SPROCKET: See Sprocket Diagnosis section. Do not continue to use a worn drive sprocket - severe chain damage can result. See Section 16.

Safety Warning

13. CHAIN BRAKE: To allow for free movement and full contact of the brake band, keep the clutch drum and cover mechanism clean and free of dirt and sawdust in the areas shown in figure 35. Failure to do so may result in brake malfunction.

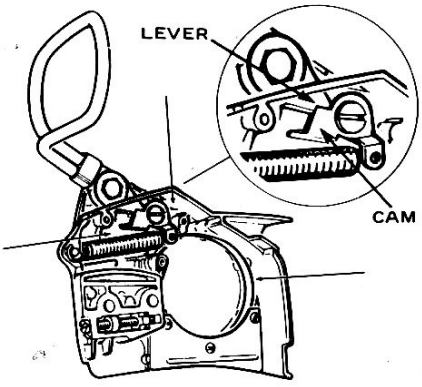


FIGURE 35

Safety Warning

To aid in maintaining proper brake function, each work day shut off engine, engage the chain brake, (push level forward) and apply a small amount of HTB-2 grease at the point of contact of the lever and cam. Periodically lubricate the lever pivot point with oil. See figure 35 inset and 36.

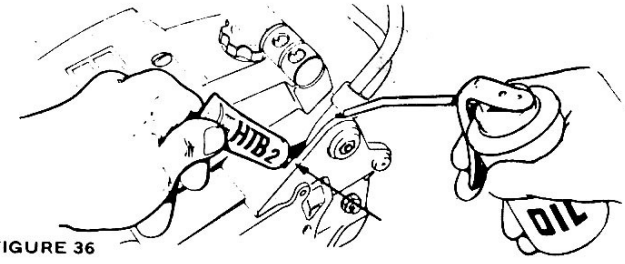


FIGURE 36

Safety Warning

DO NOT lubricate the brake band: To do so would greatly reduce the braking efficiency.

Safety Warning

Have an Authorized Pioneer/Partner Dealer replace the brake band assembly when it becomes worn to approx. .020" (0.5mm) thickness either where it encircles the clutch drum or at the rivited loop for the roll pin.

14. PROTECTIVE DEVICES: Depending on the saw model, several features have been included for increased operator protection. In the event of loss, breakage or malfunction of any of the following parts, stop using the saw until repairs have been made by an Authorized Pioneer/Partner Dealer.

(A) Throttle Control Lock-out - designed to reduce the risk of inadvertant throttle opening.

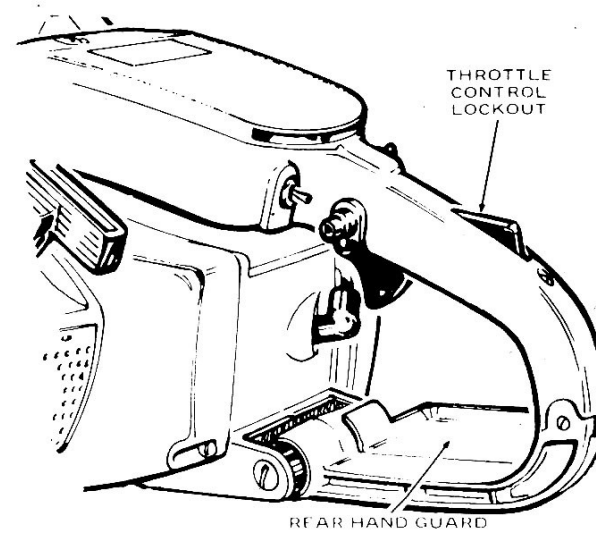
(B) Chain Catcher Pin - designed to reduce the risk of a broken or disengaged saw chain whipping back toward the operator.

(C) Rear Hand-Guard - designed to protect the operators hand from being struck by branches, etc.

Safety Warning — **Excessive vibration could create the risk of vascular damage after prolonged usage in cold climates. Vibration also adds to fatigue. Check the rubber isolators between the engine and the handles at regular intervals (if so equipped).**

15. CLUTCH ASSEMBLY: **Periodically check the clutch assembly for wear, breakage, shoe chipping, etc., that could cause the chain to move at idle speed presenting a hazard to anyone near it. Replace all damaged parts as soon as they are noticed. Refer to Section 16 for information on required lubrication of the sprocket bearing.**

Safety Warning



CHAIN MAINTENANCE

SECTION 13

FILING INSTRUCTIONS

Safety Warning — **Proper chain filing and maintenance can be significant in reducing the severity of "Kickback". Refer to page 4 "To Avoid Kickback".**

SAW CHAIN FILE DIMENSIONS:

For .325 pitch chains use 3/16" dia.
For 3/8, .404 pitch chains use 7/32" dia.

NOTE: Use the next smaller file when cutters are filed back beyond half the cutters length.

The condition of the chain governs the performance and life of the cutting attachments. These instructions are for your benefit; study and follow them carefully.

SHARPENING CUTTERS

A. Support the cutting attachments and tension chain.
B. Place the file into a cutter opposite your side. Hold the file PARALLEL TO THE CUTTING EDGE at the recommended 35^{o} bevel angle with 1/5 of the file diameter protruding above the cutter. (See Figure 37, 38 and 39).

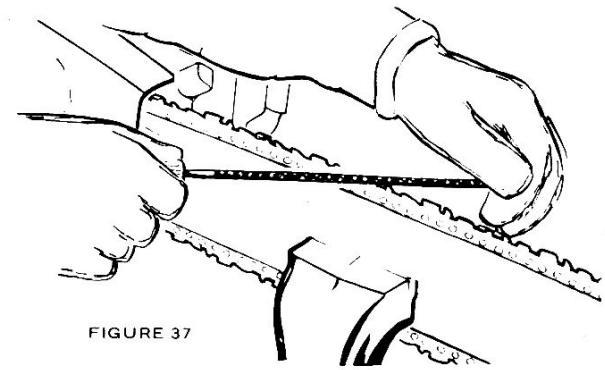
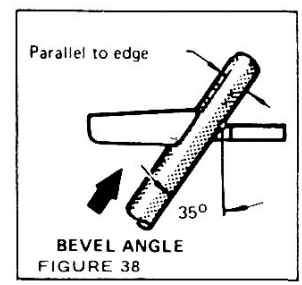
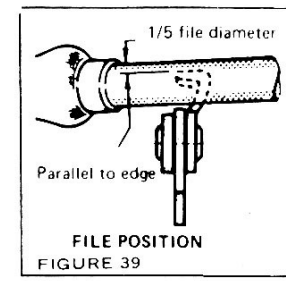


FIGURE 37

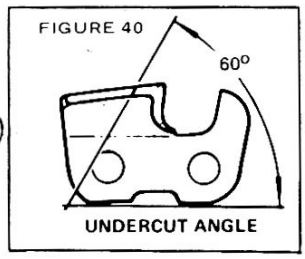


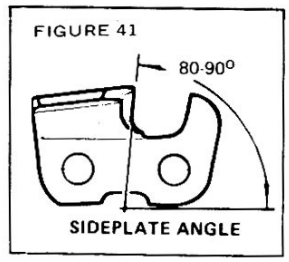
BEVEL ANGLE
FIGURE 38



FILE POSITION
FIGURE 39

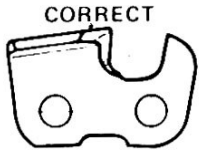
C. Keep the file snug to the top edge and apply two or three steady file strokes to obtain the correct shape as illustrated in Figures 40 and 41. Completely sharpen one side of the chain, filing from the inside of the cutter.





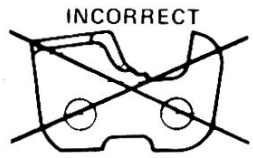
D. Move to the other side of the chain and repeat steps 'B' and 'C', filing ALL CUTTERS UNIFORMLY and to the SAME length.

COMPARE YOUR FILING RESULTS WITH FIGURES 42, 43, 44 and 45.



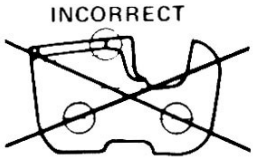
Correct shape-fast cutting and long life

FIGURE 42



Back sloped-file too high

FIGURE 43



No undercut file handle too high

FIGURE 44

Hooked-file too low

FIGURE 45

DEPTH GAUGE

Keep all depth gauges uniform in height. A depth (jointing) gauge must be used. Maintain the round corner. Do not attempt to correct a poor cutting chain by increasing the depth clearance. Always sharpen the chain before filing the joint clearance. (See Figures *46* and 47).

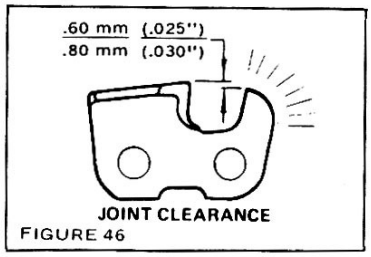


FIGURE 46

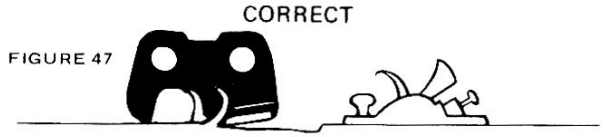


FIGURE 47

EXCESSIVE DEPTH GAUGE

Safety Warning

Do not increase the clearance beyond the recommended setting. Lack of care in setting the depth gauge may result in excessive or uneven clearance. This will cause the cutters to bite in, chain will grab, resulting in increased risk of kickback, overloading of attachments, poor cutting performance and damage to both chain and bar. (See Figure 48).

FIGURE 48

INSUFFICIENT DEPTH GAUGE

Cutters cannot bite into the wood, chain will not cut effeciently or to capacity. This will require extra pressure on your part resulting in excessive wear to the bottom of the cutters and links plus rapid wear to the guide bar rails. (See Figure 49).

FIGURE 49

CHAIN DIAGNOSIS

SECTION 14

TROUBLE	PROBABLE CAUSE	REMEDY
Chain stretched beyond adjustment.	Dull cutters. Lack of lubrication.	Remove a side and drive link. File chain.
Chain breakage.	Excessive pressure by Operator. Excessive joint. Dull cutters.	Replace damaged parts. Rejoint chain. File chain.
Chain stiff. AND/OR Hard to tension.	Lack of lubrication. Loose chain. Poor maintenance.	Clean chain in solvent. Oil bath over-night. Correct tension. Check oil pump and vent holes.
Chain stalls in cut and/or scored clutch drum	Clutch slipping. Excessive pressure by Operator. Clutch spring not releasing.	Check clutch shoes for wear. Check spring for tension. Apply less pressure; correctly filed chain will self-feed.

TROUBLE	PROBABLE CAUSE	REMEDY
Chain cuts rough or digs in.	Cutter angles incorrectly filed. Too much or uneven joint.	Check your filing instructions. Refile to correct angles. Check joint. Rejoint your chain.
Chain jumps bar.	Incorrect chain tension. Damaged cutter bar. Damaged drive links. Worn or damaged sprocket.	Correct chain tension. Check bar for damage, repair or replace. Check drive links for damage. Replace links or entire chain.
Chain cuts on an angle.	Cutter angles and/or length not the same on both sides. Uneven joint. Cutter bar rails uneven.	Refile cutters to same angle. Check rails. If worn, have bar serviced or replaced. Rejoint.
Worn drive sprockets	Incorrect chain tension. Lack of lubrication. Dull cutters.	Replace sprocket. Correct chain tension. File cutters and joint chain.
Excessive wear on drive links and/or side straps.	Lack of lubrication. Excessive tension. Dull chain. Worn sprocket.	Check oil pump. Check tension. File chain. Check sprocket.

COMMON PROBLEMS FOUND WITH CUTTERS AND LINKS

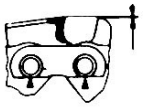
Safety Warning **A badly worn or poorly maintained chain may break and represent a safety hazard to either the chain saw operator or a bystander. Consult your Pioneer/Partner dealer for advice on when to replace the chain.**

PROBLEM: concave side link and cutter bottoms
CAUSE: chain run too tight, insufficient lubrication, cutters dull
REMEDY: decrease chain tension, check oiler, file cutters.

PROBLEM: heel wear on cutters and side links
CAUSE: chain run too loose, too much joint, cutters dull
REMEDY: increase chain tension, maintain basic .025" joint, file cutters

PROBLEM: slight heel wear cutters and side links
CAUSE: back slope on cutters, chain slightly tight, cutters dull
REMEDY: remove back slope, decrease chain tension, file cutters

PROBLEM: excessive bottom wear on cutters and side links
CAUSE: insufficient joint, chain run tight, filing blunt, no undercut, cutters dull
REMEDY: increase joint to :025", decrease tension -refer to filing instructions, file cutters



PROBLEM: severe side wear and abrasive damage
CAUSE: caused by striking stone or nails, etc., cutters dull
REMEDY: all visible abrasion must be removed by filing cutters back, file cutters

PROBLEM: crack under rear rivet
CAUSE: cutters dull or hooked
REMEDY: refer to filing instructions

PROBLEM: crack under front rivet
CAUSE: insufficient joint
REMEDY: increase joint to basic .025"

PROBLEM: clearance notch peened
CAUSE: sprocket teeth worn
REMEDY: renew sprocket

PROBLEM: side wear
CAUSE: abrasive cutting condition
REMEDY: check for grit in timber being cut, lubricate well

PROBLEM: back nicked
CAUSE: chain run too loose
REMEDY: increase tension

PROBLEM: back rounded to bottom
CAUSE: worn sprocket, chain run too loose
REMEDY: increase tension, renew sprocket

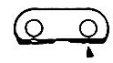
PROBLEM: back and front of link peened
CAUSE: worn or wrong pitch sprocket
REMEDY: renew sprocket, increase tension

PROBLEM: back peened
CAUSE: worn sprocket, dull cutters
REMEDY: renew sprocket, file cutters

PROBLEM: bottom peened and worn
CAUSE: link riding on bottom of bar groove, bar rails worn, dull cutters
REMEDY: renew bar, file cutters

PROBLEM: bottom point rolled up
CAUSE: link bottoming in worn sprocket, dull cutters
REMEDY: renew sprocket, file cutters

PROBLEM: bottom rough and broken off
CAUSE: chain run too tight causes stretch and climbs up on sprocket teeth
REMEDY: renew worn chain or sprocket, run chain with less tension

PROBLEM: cracks under both rivets CAUSE: chain run dull and tight, insufficient joint REMEDY: increase joint to basic .025", refer to filing instructions		PROBLEM: drive lugs worn on sides CAUSE: excessive bevel angle of cutters causes side thrust REMEDY: refer to filing instructions	
PROBLEM: bottom peened and burred CAUSE: hooked cutters, dull, no undercut causes chain to pound on rails REMEDY: eliminate hook, refer to filing instructions		PROBLEM: drive lugs worn on one side CAUSE: excessive bevel angle of cutters on one side REMEDY: cutters must have equal face angles	
PROBLEM: front peened CAUSE: chain run too slack, crowds at bar entry REMEDY: increase tension		PROBLEM: chain jumps out of bar groove CAUSE: uneven filing, chain run too loose REMEDY: increase chain tension, refer to filing instructions	

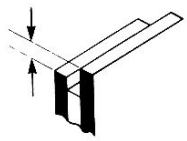
GUIDE BAR DIAGNOSIS

SECTION 15

PROBLEM: excessive wear on one bar rail

CAUSE; poor filing or jointing, check for variations, both sides

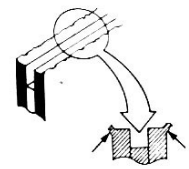
REMEDY: refer to filing instructions, replace bar if required



PROBLEM: rail chipping

CAUSE: normal rail burring has not been removed

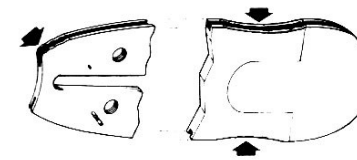
REMEDY: remove burr with a flat file Turn bar over at regular intervals



PROBLEM: bar peened at chain entry

CAUSE: chain runs slack, crowds at this point

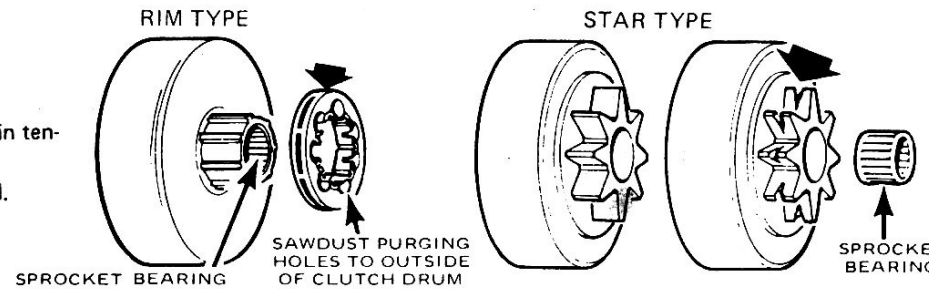
REMEDY: increase tension slightly



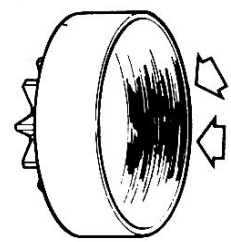
CHAIN SPROCKET DIAGNOSIS

SECTION 16

PROBLEM: abnormal sprocket wear
CAUSE: insufficient or excessive chain tension, insufficient lubrication.
REMEDY: sprocket must be replaced.



PROBLEM: scored drum
CAUSE: overloaded clutch through poor filing, chain pinch, etc.
REMEDY: refer to filing instructions, release throttle if chain pinched.

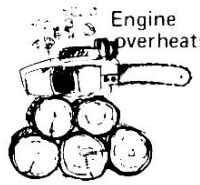
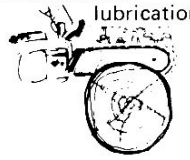


Safety Warning

PROBLEM: chain moves around guidebar at idle speed.
CAUSE: 1) idle speed set too fast. 2) sprocket bearing lacks lubrication. 3) Clutch spring stretched.
REMEDY: 1) slow idle speed. 2) Apply small amount of HTB-2 grease to sprocket bearing. 3) Replace clutch spring. See illustration above. See Section 4, Item 18.

ENGINE DIAGNOSIS

SECTION 17

TROUBLE	PROBABLE CAUSE	REMEDY
Engine fails to start.	Fuel tank empty.	Fill with correct fuel mixture.
	Engine not choked.	Choke engine.
	Carburetor adjustments.	See starting instruction.
	Over-choking.	Open throttle and pull starter until engine fires.
	Flooded engine.	Have authorized dealer check carburetor, check for plugged air filter.
	Spark plug.	Have your local Authorized Dealer test the spark plug. Install a new, correctly gapped, plug if in doubt.
		Safety Warning **When performing this test ensure the absence of fuel in the test area. Gasoline is extremely flammable and highly explosive under certain conditions.**
	Ignition System	If no spark, see your authorized Pioneer/ Partner dealer.
	*Plugged or frost covered pickup in fuel tank.	Remove, clean or replace. Check for ice, water and dirt in fuel tank.
	Plugged impulse hole in carburetor, mis-aligned carburetor gasket or reed valve gasket.	Remove, clean and realign or replace gasket(s).
	*Frozen gas line or ice in carburetor filter. (*Conditions which may be experienced during cold weather operation.)	Remove and clean. De-ice additive used in pre-scribed proportion will counteract this. One teaspoonful to a full tank of fuel.
Engine cuts out, leans out or misfires	Short circuit in ignition system.	Check all wires and connections.
	Fouled, wet or damaged spark plug.	Clean and adjust, or replace.
	Ignition System - See your dealer.	See your Authorized Pioneer/Partner Dealer.
	Partial blockage in fuel system.	Clean out carefully and check carburetor.
	Dirt in fuel lines.	Check and clean.
	Puncture in fuel lines.	Replace.
Engine lacks power.	Incorrect fuel mixture.	Drain tank, refill with correct mixture.
	Carburetor out of adjustment.	Adjust carburetor. (See Section 10).
	Exhaust ports or muffler screen clogged.	Clean.
	Air intake filter clogged.	Clean or replace.
	Poor compression.	See your Authorized Pioneer/Partner Dealer.
Engine overheats. 	Cylinder fins or air system clogged.	Clean.
	Incorrect fuel mixture.	Drain tank, refill with correct mixture.
	Carburetor lean.	Adjust. (See Section 10).
	Leaking cylinder base or crankcase gaskets.	See your Authorized Pioneer/Partner Dealer.
	Leaking crankcase seals.	See your Authorized Pioneer/Partner Dealer.
Insufficient chain lubrication. 	Oil tank empty.	Fill tank.
	Dirt in pump assembly or discharge vent.	Remove and clean pump and feed line. Fill with re-commended oil.
	Plugged oil tank bent.	Clean vent.
	Bar oiler hole plugged.	Clean oiler hole.

FOR MAJOR ENGINE REPAIRS SEE YOUR AUTHORIZED PIONEER/PARTNER DEALER.

STORAGE INSTRUCTIONS

SECTION 18

Safety Warning

Always store your saw in a well ventilated area, completely away from all external ignition sources, such as open flame, pilot lights, electrical spark, etc.

A - SHORT TERM (Periods up to 60 days)

- Drain the fuel tank.
- Clean away all accumulated sawdust, etc., from the saw, particularly in the area of the air filter element and under the clutch cover.

- Thoroughly lubricate the saw chain.
- Wipe the guide bar both sides with an oily cloth.
- Grease the nose bearings on sprocket nose or roller nose type guide bars.
- Store in a cool, dry place.

NOTE:

Never store your saw on a piece of cardboard or place directly on a dirt or concrete floor. There are chemicals in all three that will corrode the castings. Always place the saw on a dry wooden board when storing. Castings that are corroded from improper storage will not be covered by warranty.

B - LONG TERM (Periods over 60 days)

- Carry out all short term storage instructions.
- Run the carburetor and fuel lines dry.

NOTE:

When running the fuel system dry, it is recommended that a small amount of 2 & 4 Fuel Conditioner (or equilent) be added to the fuel to alleviate possible gum or varnish deposits.

- Remove the guide bar, guide plates (if so equipped) and saw chain. Thoroughly clean, inspect (see sections 14 & 15) and re-install.
- Remove the spark plug, pour approximately one tablespoon of engine oil into the cylinder through the spark plug hole. Pull the engine over SLOWLY to distribute the oil on the cylinder walls. Re-install the spark plug.

REMOVING FROM STORAGE

- Remove the spark plug.
- Pull the starter rapidly to clear excess oil from the cylinder.
- Clean the spark plug, re-gap the electrode if required and re-install.
- Tighten all loose fasteners and make a thorough visual inspection for damaged or missing parts - in particular check all fuel lines for cracks or splits that may leak fuel. Repair or replace all damaged parts before using the saw!

- Follow instructions in Section 7 and 8 on refueling and starting the saw.

WARRANTY SERVICE

SECTION 19

To make a claim under warranty, contact the authorized Pioneer service dealer from whom the chain saw was originally purchased, or the nearest authorized Pioneer service dealer. Remember, the Pioneer chain saw must be delivered to an authorized service dealer within the warranty period, and all warranty work must be performed by an authorized Pioneer service dealer. Proof of purchase will be required by the dealer to substantiate any warranty claim.

EXAMPLES OF ITEMS NOT COVERED BY WARRANTY Provisions of the Warranty Will Not Apply to:

Normal service requirements arising during the warranty period such as carburetor or ignition adjustment.

Normal service work over and above the repair or replacement of defective parts.

Chain saws subject to misuse, neglect, negligence, or accident.

Chain saws that have been altered or modified so as to adversely affect their operation, performance or durability or to change their intended use.

Repairs made necessary by normal wear or by the use of parts or accessories which are either incompatible with the chain saw or adversely affect its operation, performance or durability.

Chain saws not operated or maintained in accordance with the Pioneer Owner's-Operator's Manual or any Instruction Sheets for the product.

Normal cleaning, adjusting or replacing of such items as filters, spark plugs, or ignition points.

Periodic service check-up, tune-up or diagnosis of the chain saw.

Expense of delivering the chain saw to an authorized dealer and expense of returning the saw back to the owner, mechanic's travel time, or rental of a like product during the time warranty service is being performed.

The warranty applies only to the original retail purchaser. Second-owner or subsequently owned chain saws are not covered under this warranty.

OWNER'S OBLIGATION AND RESPONSIBILITY

Normal maintenance service and replacement of service items are the responsibility of the owner and as such are not considered defects in material or workmanship within the terms of the warranty. Individual operating habits and usage contribute to the need for maintenance service.

Your Pioneer dealer can help with proper maintenance and care for your chain saw. This will assist in keeping your overall operating cost at a minimum.

To validate a warranty claim, it is the owner's responsibility to maintain all components in proper adjustment and to service the chain saw as specified by Pioneer. It is the owner's responsibility to provide proper lubrication for all components including the chain and to provide correct recommended fuel mixture for the chain saw where applicable.

PIONEER PARTNER

PIONEER/PARTNER DIV. OF TECFOR INC. WARRANTS EACH NEW PIONEER/PARTNER CHAIN SAW, GUIDE BAR AND SAW CHAIN FOR THE RESPECTIVE WARRANTY PERIODS OUTLINED BELOW:

ENGINE:

1. Six (6) months from date of original purchase when used for semi-professional or casual use.
2. Ninety (90) days from date of original purchase when used for professional cutting, commercial or institutional purposes.
3. Thirty (30) days from date of original purchase when used for rental purposes.

GUIDE BAR & SAW CHAIN:

Thirty (30) days from date of original engine purchase for any of the three (3) purposes noted above for engine warranty.

This warranty extends to the original purchaser only and is subject to the following terms and conditions.

Any part of the PIONEER/PARTNER Chain Saw, manufactured or supplied by PIONEER/PARTNER and found in the reasonable judgment of PIONEER/PARTNER to be "DEFECTIVE IN MATERIAL OR WORKMANSHIP" will be repaired or replaced by an authorized PIONEER/PARTNER service dealer without charge for either parts or labour.

The PIONEER/PARTNER Chain Saw, including any defective part must be returned to an authorized PIONEER/PARTNER service dealer within the applicable warranty period. The expense of delivering the PIONEER/PARTNER Chain Saw to an authorized dealer for warranty service and the expense of returning the saw back to the owner after repair or replacement will be paid for by the owner. PIONEER/PARTNER'S responsibility in respect to warranty claims is limited to making the required repairs or replacements, and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any PIONEER/PARTNER Chain Saw. Proof of purchase will be required by the authorized PIONEER/PARTNER service dealer to substantiate any warranty claim.

This warranty does not cover any PIONEER/PARTNER Chain Saw that has been subject to misuse, neglect, negligence, or accident, or that has been operated or maintained in any way contrary to the operating or maintenance instructions as specified in the PIONEER/PARTNER Owner/Operator's Manual or any Instruction Sheets for the product. The warranty does not apply to any PIONEER/PARTNER Chain Saw that has been altered or modified so as to adversely affect its operation, performance or durability or that has been altered or modified so as to change its intended use. The warranty does not extend to repairs made necessary by normal wear, or by the use of parts or accessories, which in the reasonable judgment of PIONEER/PARTNER are either incompatible with the PIONEER/PARTNER chain saw or adversely affect its operation, performance or durability. As to the PIONEER/PARTNER Saw Chain the warranty is not applicable to any damage caused by misuse of the chain or if filing or maintenance instructions for the chain are not followed.

PIONEER/PARTNER reserves the right to change or improve the design of any PIONEER/PARTNER Chain Saw without assuming any obligation to modify any saw previously manufactured.

PIONEER/PARTNER assumes no responsibility for incidental, consequential or other damages including but not limited to, expense for gasoline, expense of delivering the saw to the dealer and expense of returning the saw back to the owner, mechanics travel time, telephone or telegram charges, rental of a like product during the time warranty service is being performed, travel, lodging, loss or damage to personal property, loss of revenue, loss of use of the PIONEER/PARTNER Chain Saw, loss of time, or inconvenience.

* Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

ALL IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE APPLICABLE WARRANTY PERIOD SHOWN, ACCORDINGLY, ANY SUCH IMPLIED WARRANTIES INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, ARE DISCLAIMED IN THEIR ENTIRETY AFTER THE EXPIRATION OF THE APPLICABLE WARRANTY PERIOD. PIONEER/PARTNER'S OBLIGATION UNDER THIS WARRANTY IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS, AND PIONEER/PARTNER DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEM ANY OTHER OBLIGATION.

* SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

* This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all PIONEER/PARTNER Chain Saws sold in North America and is given by:

PIONEER/PARTNER
DIV. OF TECFOR INC.
224 THORNDALE AVE.
BENSENVILLE, ILLINOIS 60106

* Designates Paragraphs Applicable only for United States of America.

Barber Chair A tree stump having an unusually high backrest resembling a barber's chair as a result of improper felling.

Widow-Maker A dangerous piece of deadwood, perched precariously in the tree being felled.

Kerf The cut made by a saw at the butt end of a felled tree or end of a log.

Chicot A tall, dead stub of a tree which was killed by lightning, fire, or disease and which has been broken off by the wind.

Dutch Cut An improper notch in a tree to be felled made more hazardous by the positioning of the back or final cut.

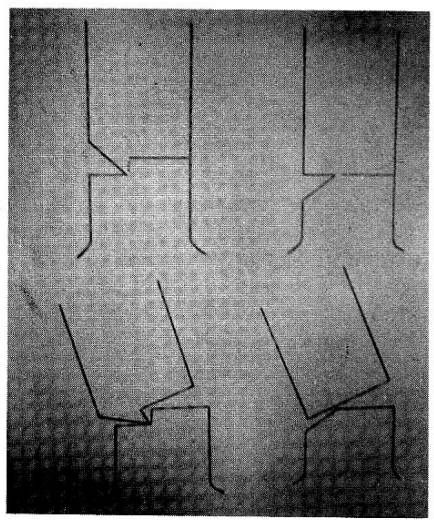
Humbolt Notch The opposite of the conventional felling notch in a tree where the upper cut of the notch is horizontal and the lower half of the notch is at about a 45° angle.

Choker Cable Braided steel cables on a log skidder used to winch and skid felled trees or logs to a roadside landing.

Yo-Yo Start A frowned-upon method of starting a chainsaw favoured by widow's husbands and invalids. The chainsaw is held in the right hand and the starter cord in the left. The up and down motion of the chainsaw, like a yo-yo, automatically pulls the starter cord in the operator's left hand.

Proper Start Place chainsaw on cleared ground. Put right foot through throttle guard, left hand on grip, and right hand on starter cord. (Reverse for left-handed persons).

While most readers will grasp a high percentage of fact from this article, the author will rate his efforts exceedingly worthwhile even if the reader merely remembers that the "YO-YO" is a "NO-NO"!



The two diagrams on the left show (1) a conventional notch (upper) and the felling cut 1" to 2" above the notch (2). Lower (left) diagram shows how this method stops a falling tree from kicking back and injuring the operator. The two right hand photos show the "Humbolt Notch" type of felling. This is preferred by the saw mills and equally safe.

chain brake, a light-weight tubular device mounted on some chainsaws above the operator's left hand. The device is so constructed that if the saw kicks back violently, the chain brake hits the operator's left wrist instantly stopping chain rotation and preventing serious injury.

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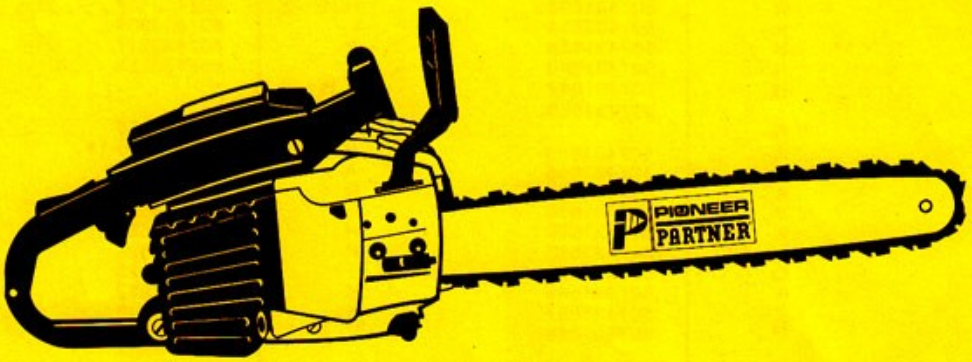
1. 1986

PIONEER PARTNER

P39



Spare Parts

Pièces de rechange

PN 433239 REV. 1-86

North American Version

DEAR P39 CUSTOMER:

PLEASE BE AWARE THAT YOUR SAW IS EQUIPPED WITH AN ALTERNATIVE IGNITION SYSTEM INSTEAD OF THOSE COMPONENTS DEPICTED ON YOUR ILLUSTRATED PARTS LIST.

PLEASE ORDER THE PARTS BELOW BY PART NUMBER SHOULD YOU REQUIRE A REPLACEMENT.

MODULE.....476339
FLYWHEEL.....433294
SWITCH WIRE.....433248

Parts illustrated do not necessarily depict original equipment on all models.
Il peut arriver que les illustrations relative à certains modèles ne coincident pas exactement avec les pièces originales.

The manufacturer reserves the right to make changes and/or product improvements without notification.
Le fabricant se réserve le droit de changer les caractéristiques de son matériel sans préavis.

Legend
CBC - C.S.A. Approved, Half Wrap Front Handle
CBD - Standard North American, Half Wrap Front Handle
CBW - Western, Full Wrap Front Handle

Numero de Piece Item Number	Location
507314936	P
507425672	P
507426752	F
507427273	B
507427278	B
507427690	C
507427993	B
507428335	C
507428746	G
507429266	F, G
507429546J	J
507429548	J
507429650	A
507429851	I
507429928	J
507429946	B
507429956	D
507430184	J
507430190	G
507430191	V
507430192	Q
507430196-18	L
507430197	G, L
507430202-19	A
507430203	A
507430227	H
507430228	H
507430229	H
507430231	H
507430282	N
507430327-1	A
507430385	H
507430399	A
507430545	V
507430684	K
507430694	I
507430713	Q
507430716	F
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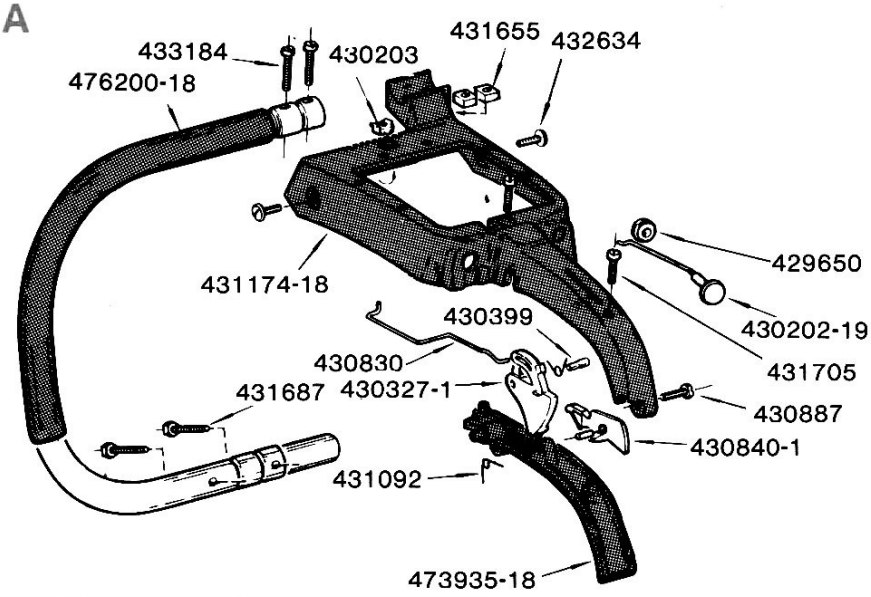
A



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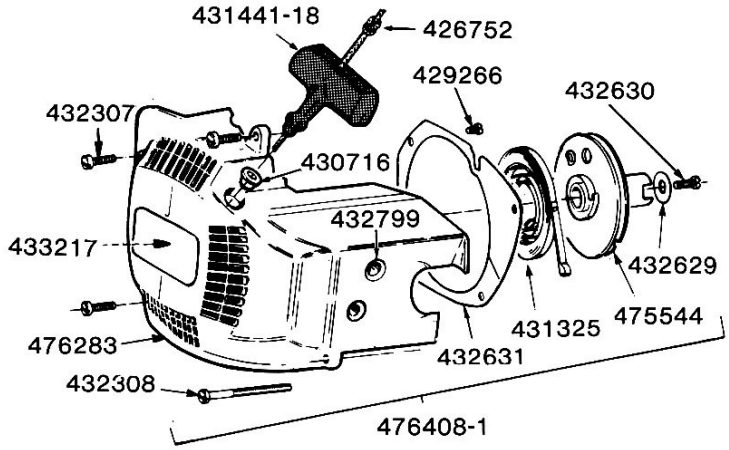

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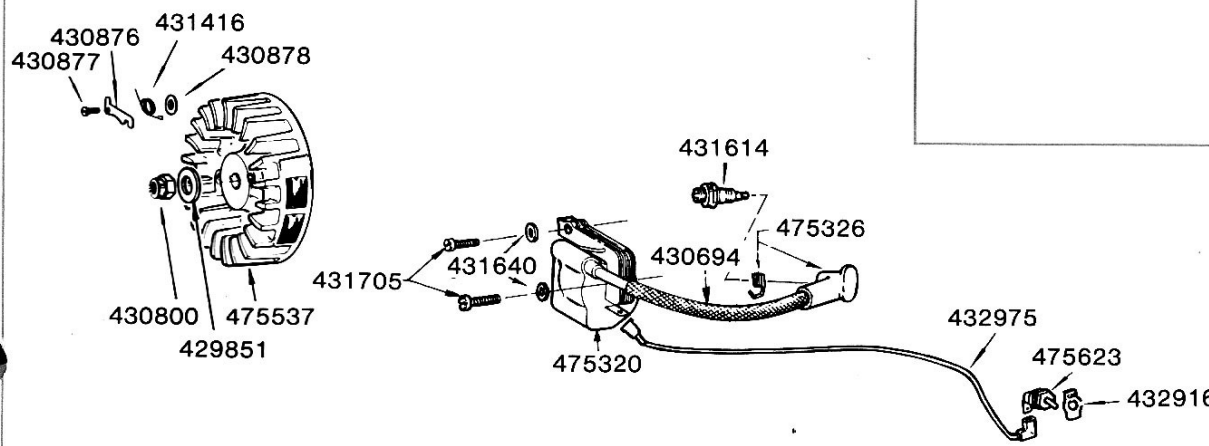
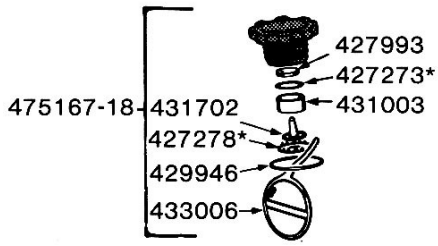


*** When ordering: Add prefix "507" to all six digit numbers eg. 507 XXXXXX**

B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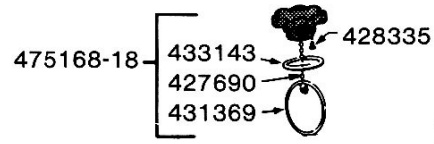
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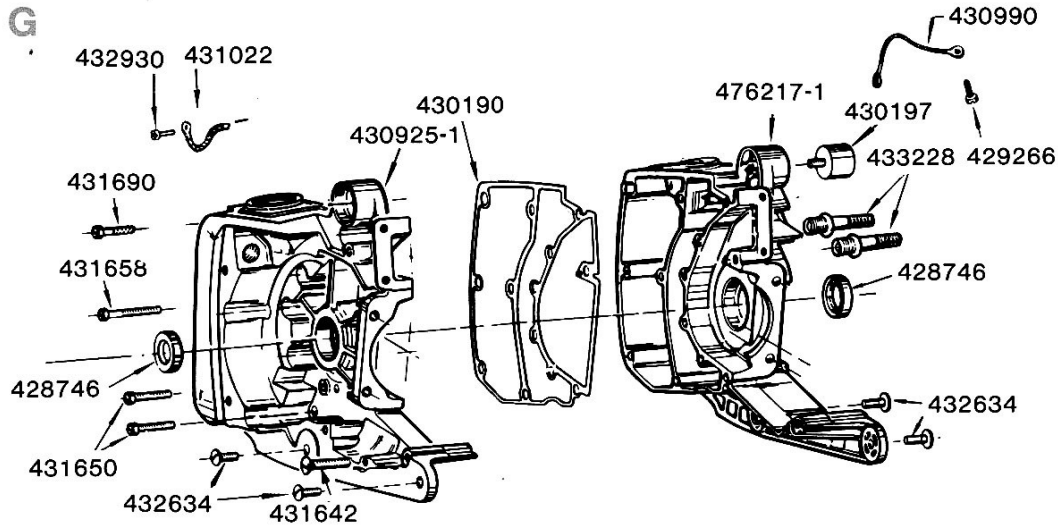
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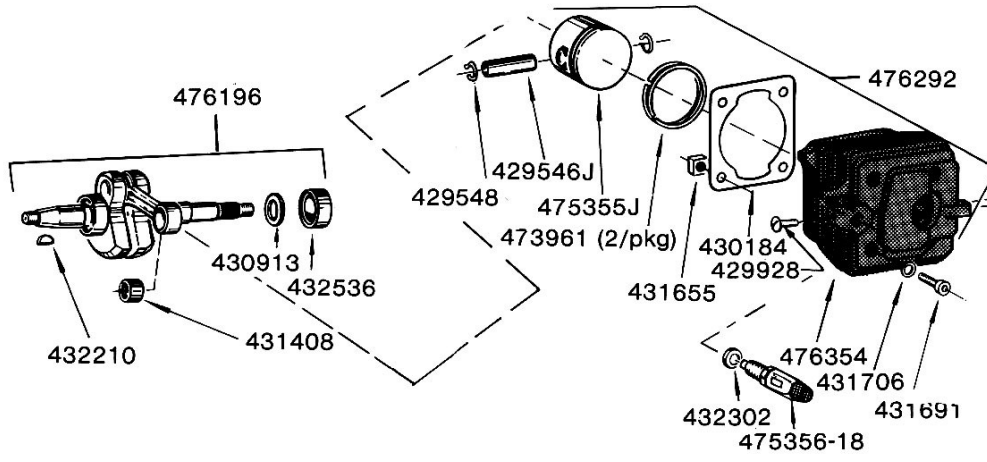
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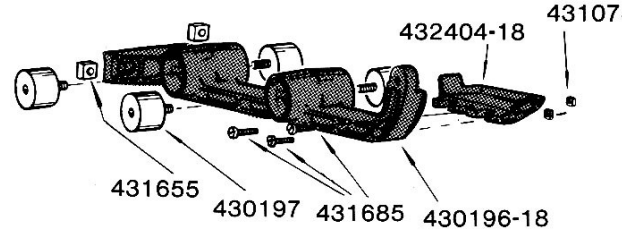
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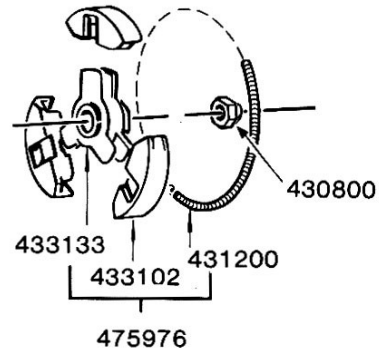
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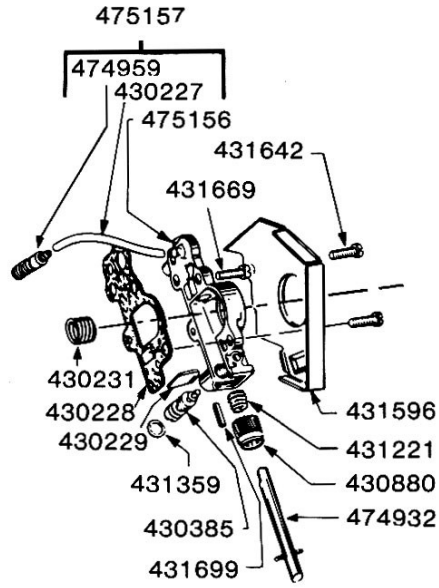
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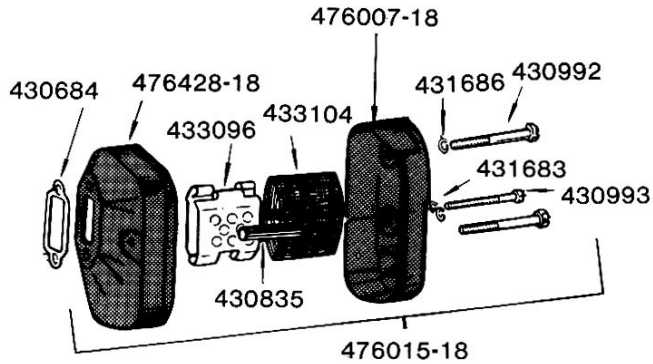
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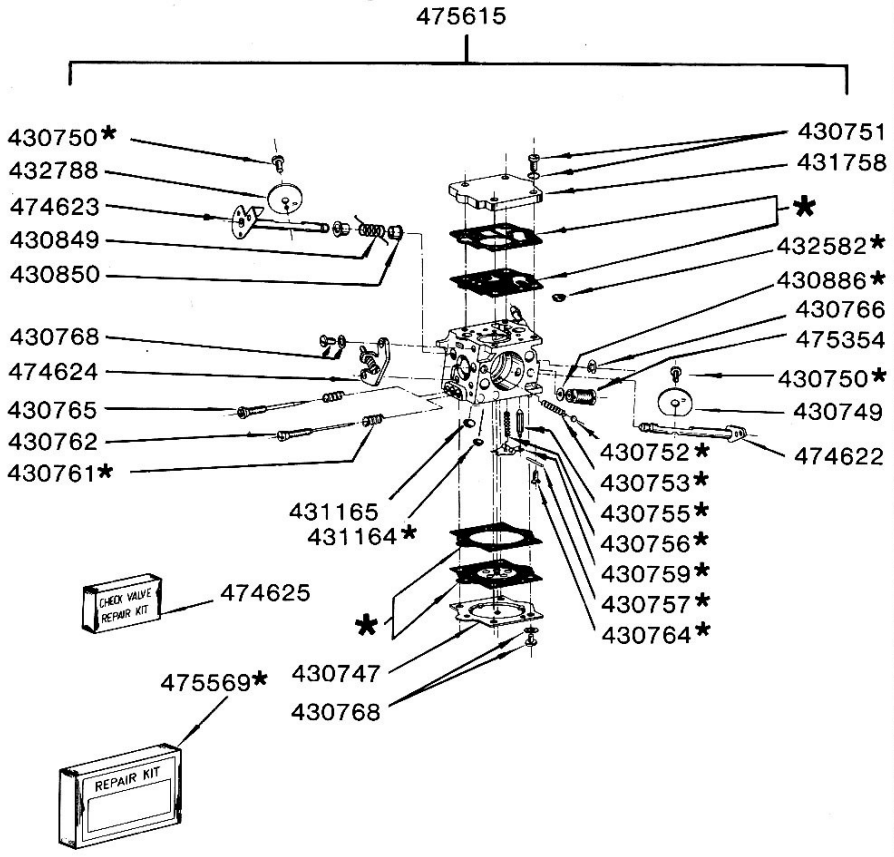

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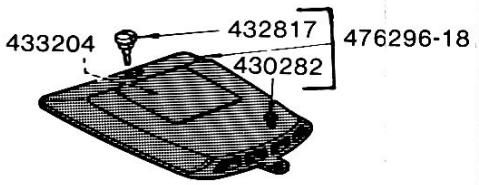

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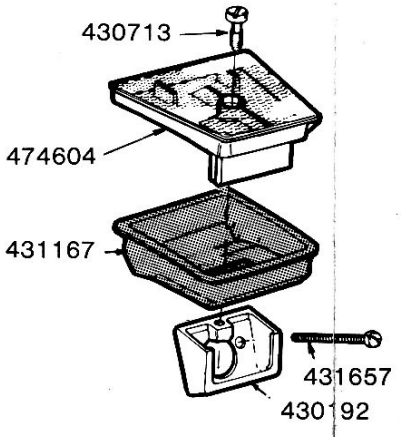

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*** When ordering: Add prefix "507" to all six digit numbers eg. 507 XXXXXX**

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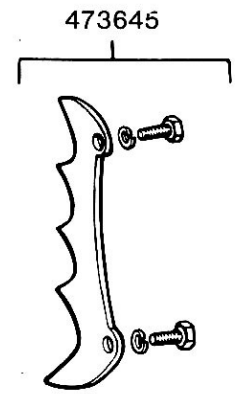
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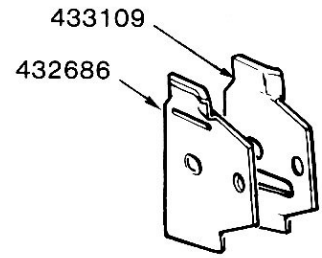
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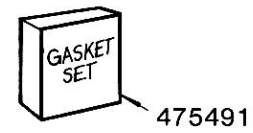
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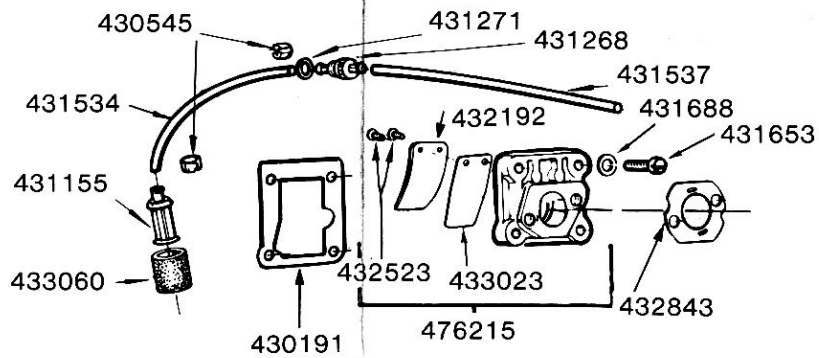
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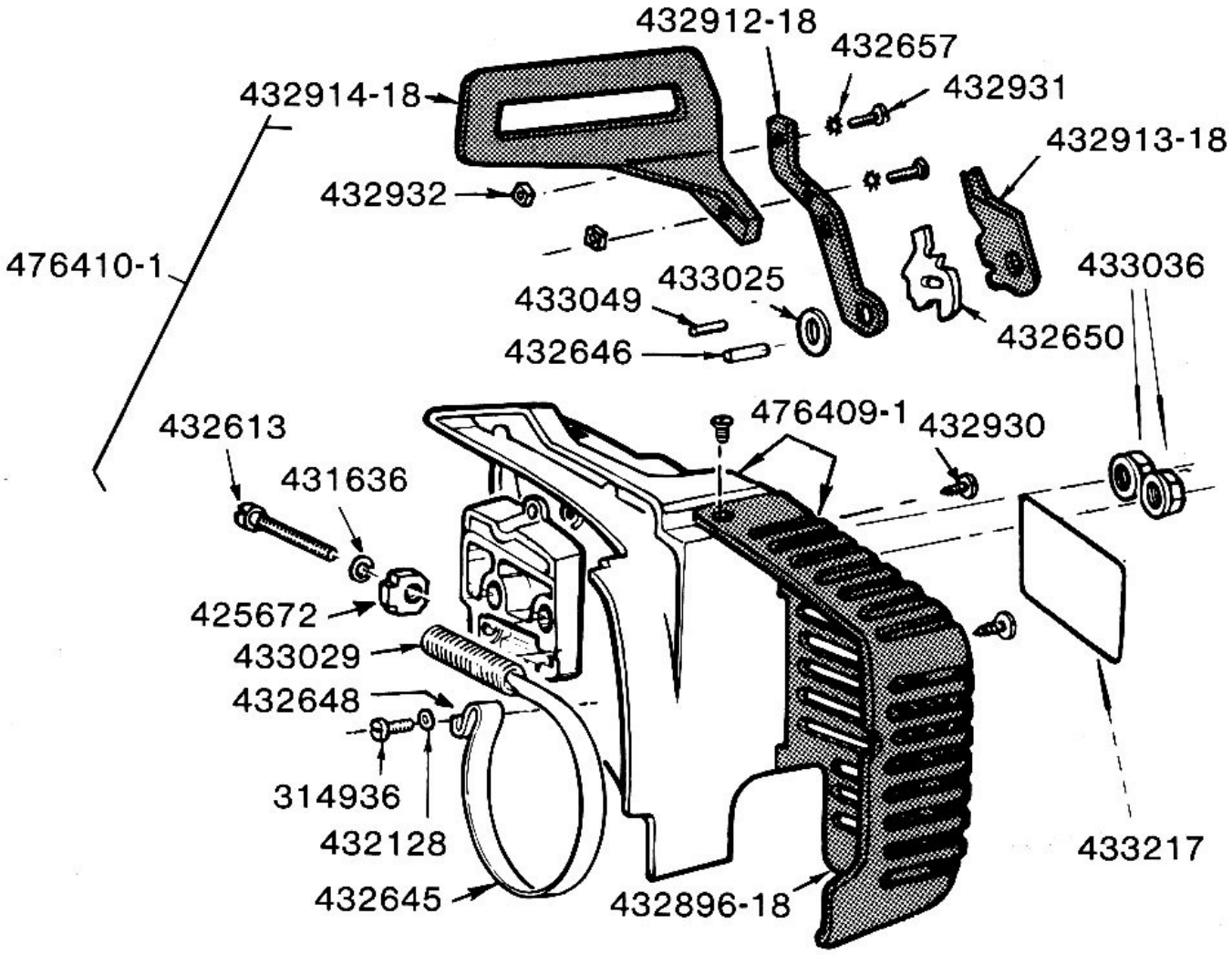

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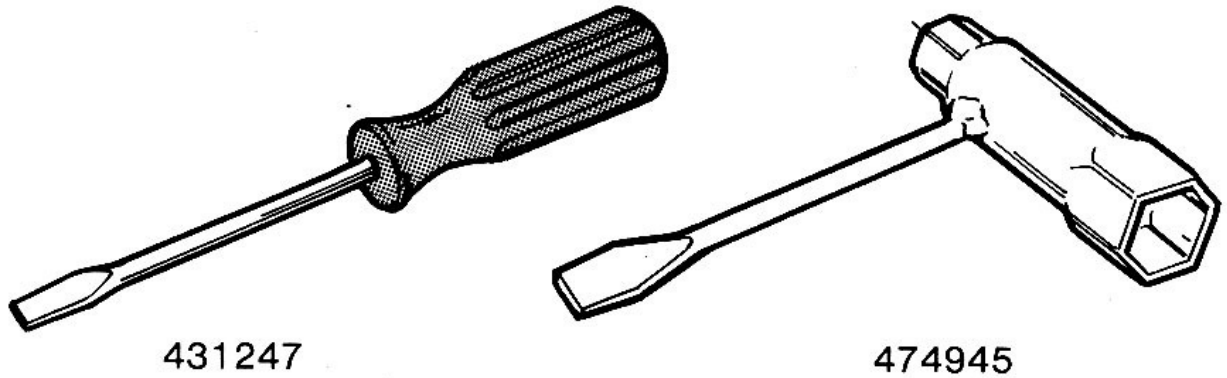

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